

Climate Prediction Division  
Global Environment and Marine Department  
Japan Meteorological Agency

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## Regarding bugs in the GRIB encoding of JRA-25/JCDAS

We have recently found bugs in the GRIB encoding, which affected some of the JRA-25/JCDAS products distributed from the JRA-25/JCDAS website. (For the list of the files, parameters and levels that are affected by the bugs, please see Table 1.)

We have replaced the relevant 6 hourly files with ones correctly encoded (Table 1). We have also recalculated the relevant monthly statistics using the corrected 6 hourly files and put them on the website (Tables 2 through 6). If you have downloaded the files listed on Tables 1 through 6, please download the corrected files from the website.

We sincerely apologize for any inconvenience caused by this problem. We are committed to implement all necessary measures to prevent future occurrence.

If you have any questions regarding this matter, please do not hesitate to contact [ira@met.kishou.go.jp](mailto:ira@met.kishou.go.jp).

Table 1. Analysis on model levels (anl\_mdl; 6 hourly)

	File	Parameter	Level	Symptom
1	anl_mdl.1983122600	VVELhbl (Pressure vertical velocity)	24	Reference value is corrupt; 0 -> -1.0
2	anl_mdl.1997062918	TMPHbl (Temperature)	16	(26.355N, 57.375E) is corrupt; 205.802 -> 269.802
3	anl_mdl.1998080700	HGThbl (Geopotential height)	33	(68.971N, 123.750E) is corrupt; 22776.6 -> 26872.6

Table 2. Analysis on model levels (anl\_mdl; monthly)

	File	Parameter	Level	Symptom
1	anl_mdl.198312.gr	VVELhbl (Pressure vertical velocity)	24	Reference value at 00UTC on 26 Dec 1983 is corrupt.
2	anl_mdl.199706.gr	TMPHbl (Temperature)	16	(26.355N, 57.375E) at 18UTC on 29 Jun 1997 is corrupt.
3	anl_mdl.199808.gr	HGThbl (Geopotential height)	33	(68.971N, 123.750E) at 00UTC on 7 Aug 1998 is corrupt.

Table 3. First guess on model levels (ges\_mdl; monthly)

	File	Parameter	Level	Symptom
1	ges_mdl.199803.gr	UGRDhbl (Zonal wind)	32	25.234N~35.327N at 12UTC on 28 Mar 1998 are corrupt.
		HGThbl (Geopotential height)	40	5.047N~14.019N at 00UTC on 30 Mar 1998 are corrupt.
2	ges_mdl.199804.gr	VGRDhbl (Meridional wind)	18	56.635S~46.542S at 18UTC on 23 Apr 1998 are corrupt.
3	ges_mdl.199806.gr	SPFHhbl (Specific humidity)	31	2.804N~12.897N at 12UTC on 4 Jun 1998 are corrupt.

Table 4. Forecast on model levels (fcst\_mdl; monthly)

	File	Parameter	Level	Symptom
1	fcst_mdl.199803.gr	HGThbl (Geopotential height)	19	34.205N~44.299N at 18UTC on 23 Mar 1998 are corrupt.
		SPFHhbl (Specific humidity)	40	73.457S~64.485S at 06UTC on 28 Mar 1998 are corrupt.
		CWATHbl (Cloud water content)	17	30.841S~20.748S and 36.448N~45.420N at 12UTC on 29 Mar 1998 are corrupt.
2	fcst_mdl.199804.gr	MFLXBhbl (Upward mass flux at cloud base)	1	75.700N~85.791N at 12 UTC on 15 Apr 1998 are corrupt.
3	fcst_mdl.199806.gr	UGRDhbl (Zonal wind)	7	62.242S~52.149S at 00UTC on 4 Jun 1998 are corrupt.
		TMPHbl (Temperature)	10	15.140N~24.112N at 18UTC on 8 Jun 1998 are corrupt.

Table 5. Physics monitor on model levels (fcst\_phy3m; monthly)

	File	Parameter	Level	Symptom
1	fcst_phy3m.198807.gr	VDFHRhbl (Vertical diffusion heating rate)	35	Reference value at 06UTC on 6 Jul 1988 is corrupt.
2	fcst_phy3m.199301.gr	LRGHRhbl (Large scale condensation heating rate)	2	Reference value at 06UTC on 2 Jan 1993 is corrupt.
3	fcst_phy3m.199404.gr	SWHRhbl (Solar radiative heating rate)	4	67.850S~62.242S at 06UTC 26 Apr 1994 are corrupt.
4	fcst_phy3m.199505.gr	CNVHRhbl (Convective heating rate)	28	79.064N~84.670N at 00UTC on 22 May 1995 are corrupt.
5	fcst_phy3m.199803.gr	CNVMRhbl (Convective moistening rate)	38	3.925N~14.019N at 12 UTC on 24 Mar 1998 are corrupt.
		UGRDMhbl (Zonal wind)	36	86.911S~76.821S at 06UTC on 31 Mar 1998 are corrupt.
		TMPMhbl (Temperature)	1	85.791S~76.821S at 12UTC on 31 Mar 1998 are corrupt.
		SPFHMhbl (Specific humidity)	1	17.383N~26.355N at 12UTC on 31 Mar 1998 are corrupt.
6	fcst_phy3m.199804.gr	TCDChbl (Cloud cover)	8	21.869N~30.841N at 00UTC on 4 Apr 1998 are corrupt.
		CNVMRhbl (Convective moistening rate)	19	68.971N~79.064N at 06UTC on 4 Apr 1998 are corrupt.
		VVELMhbl (Pressure vertical velocity)	26	63.364S~54.392S at 12UTC on 4 Apr 1998 are corrupt.
		PRESsfc (Surface pressure)		34.205S~25.234S at 00UTC on 22 Apr 1998 are corrupt.
7	fcst_phy3m.199805.gr	MFLUXhbl (Upward mass flux)	24	12.897S~3.925S at 12UTC on 19 May 1998 are corrupt.
8	fcst_phy3m.199806.gr	OZONEhbl (Ozone mixing ratio)	37	22.991N~33.084N at 06UTC on 15 Jun 1998 are corrupt.
9	fcst_phy3m.199807.gr	VDFHRhbl (Vertical diffusion heating rate)	10	44.299N~54.392N at 12UTC on 7 Jul 1998 are corrupt.
10	fcst_phy3m.199902.gr	All parameters	All levels	Locations of first and last grid points (octet No. 11-16 and 18-23 in Section 2) at 06UTC on 27 Feb 1999 are all set to 0. Binary data sections are also partly corrupt.
11	fcst_phy3m.200410.gr	GWDUAhbl (Gravity wave zonal acceleration)	19	Reference value at 00UTC on 13 Oct 2004 is corrupt.
12	fcst_phy3m.200901.gr	HGThbl (Geopotential height)	4	Reference value at 12UTC on 19 Jan 2009 is corrupt.

Table 6. Physics monitor on pressure levels (fcst\_phy3m25; monthly)

	File	Parameter	Level	Symptom
1	fcst_phy3m25.200811.gr	ADVHRprs (Advective heating rate)	70hPa	Reference value at 18UTC on 18 Nov 2008 is corrupt.